## WILDLIFE MANAGEMENT



## AND RESEARCH NOTES

No. 971	Author Steven E. Backs, Wildlife Research Biologist	Date 1/20/2009
971	Title 2008 Fall Wild Turkey Harvest Results	1/20/2009

**Abstract:** Hunters harvested 610 wild turkeys in 57 of the 74 counties open to hunting during the fourth modern day fall wild turkey hunting season. The 2008 fall harvest was 4% more than the 585 birds taken during the 2007 fall turkey season but 15% less than the 716 birds taken during the first fall season in 2005. The 14-day archery-only season accounted for 22% of the harvest with 78% of the harvest occurring the last 5 days of the combined shotgun and archery season. Weekends accounted for 44% of the total harvest with 38% during the one weekend of the combined archery and shotgun portions. Juvenile birds made up 25.5% of the harvest while adults composed 74.5% for a juvenile to adult ratio of 1:3. The high adult proportion was probably related to a combination of hunter selectivity and below average brood production in 2008. Counties harvesting at least 25 birds (≥ 4% of harvest total) were Switzerland, Pike, and Harrison. The proportion of the fall to spring harvest by county ranged from 0% to 11% and the statewide fall to spring harvest proportion was 5% due to the conservative season structure and relatively low hunter interest.

PS Project # 300FW0BIRD07523 (Formerly WP# 204290; Fed. Study/Job No.: W-26-R; Job 16-G-5).

The 4<sup>th</sup> modern day fall wild turkey hunting season in Indiana was held from October 1-19, 2008. The archery-only portion of the season occurred from October 1-14 in 74 counties. The combined shotgun and archery portion occurred from October 15-19. Shotgun hunting was limited to 34 counties primarily in the southern portion of the state. Hunters harvested a total of 610 birds during the entire season with 132 (22%) taken during the 14-day archery-only portion and 478 (78%) taken during the 5 day combined shotgun and archery portion (Table 1). The 2008 fall harvest was 4% more than the 585 birds taken during the 2007 fall turkey season, but 15% less than the 716 birds taken during the first fall season in 2005. Across both portions of the 2008 fall turkey season, archers harvested 198 birds (32%) while shotgun hunters took 412 birds (68%). Weekends accounted for 44% of the harvest with 6% during weekends of the archery-only portion and 38% on the one weekend of the combined shotgun and archery portion (Table 2; Figure 1).

Comprehensive lifetime license holders harvested 54% of the birds followed by resident fall turkey license holders (23%) with 12% of the harvest by license exempt landowners and active military on leave (Table 3). The number of resident fall turkey licenses increased by 132 permits (+9%) and nonresident fall turkey licenses increased from 8 to 13 permits sold. The youth license increase probably reflects increasing interest in the relatively new youth deer firearms season in late September initiated in 2006. The number of license exempt landowners and active military personnel participating in the fall hunting seasons is unknown.

The determination of the sex and age of harvested wild turkeys was done by hunters and check station operators using a combination of spur and fall plumage characteristics (wing and breast feathers) as depicted in illustrations provided in the "2008-2009 Indiana Hunting and Trapping Guide". Juvenile birds made up 25.5% of the harvest while adults composed 74.5% for a juvenile to adult ratio of 1:3 (Table 4). Adult hens composed the largest proportion (47%) of the harvest. Based on observations in other states, a high proportion of adults in the fall harvest, especially adult hens, generally occurs following poor summer brood production. Brood production in Indiana during the 2008 summer was below average as has been the case each summer since 2005. Based on the fall harvest experience and research in other states, adult males (AM) are generally the least vulnerable to fall harvest than the other sex/age cohorts. Hunter selection for

larger birds, when given the opportunity, also contributes to the high proportion of adults and adult males (28%) in the Indiana fall harvests. Finally, the interpretation error of the fall sex and age criteria by hunters and check station operators is an undetermined factor related in sex and age determinations. Accurate sex and age determinations of fall turkeys are a common problem, even in states with more fall turkey hunting experience.

Counties harvesting at least 25 birds ( $\geq$  4% of the total harvest) were Switzerland, Pike, and Harrison (Table 5; Figure 2). Twelve counties open to archery only hunting and one opened during the combined archery/gun season (Clay) did not harvest a single bird. The inclusion of nine new counties into the combined archery/gun portion of the season contributed approximately 23 (4%) additional birds to the harvest. The proportion of the fall to spring harvest by county ranged from 0% to 11% and the statewide fall to spring harvest proportion was 5% due to the conservative season structure and relatively low hunter interest.

An estimate of hunter effort and success can not be determined from check station reports. A summary assessment of the first 4 fall turkey seasons is currently underway.

Table 1. Fall wild turkey harvest by season and equipment used - Indiana, 2008.

Season	Archery Only		Both Shotgu	Equipm	Equipment Totals	
Dates	1-14 October 2008		15-28 Octo	15-28 October 2008		
	No.	<u>%</u>	No.	<u>No.</u> <u>%</u>		<u>%</u>
Bow	117	89%	54	11%	171	28%
X-Bow	15	11%	12	3%	27	4%
Shotgun			410	86%	410	67%
Muzzleloader SG			2	0%	2	0%
Season Totals <sup>a</sup>	132	22%	478	78%	610	100%

<sup>&</sup>lt;sup>a</sup> Represents proportion of total harvest (610) taken during the archery-only or the combined shotgun and archery portions of the fall season.

These management and research notes are issued periodically to provide a quick source of information on wildlife surveys and investigations, and various wildlife programs prior to more formal reports. Any information provided is subject to further analysis and therefore is not for publication without permission.

Table 2. Fall wild turkey harvest by day of the 2008 season, Indiana.

Table 2. Fall wild tui	rey naivesi	No.	Percent	, indiana. Cummulative	Cummulative
Date	Day	Harvested	of Total	Totals <sup>a</sup>	Percent
	•		ery Only		
10/1/2008	Wed	16	2.6%	16	2.6%
10/2/2008	Thur	16	2.6%	32	5.2%
10/3/2008	Fri	8	1.3%	40	6.6%
10/4/2008	Sat	8	1.3%	48	7.9%
10/5/2008	Sun	9	1.5%	57	9.3%
10/6/2008	Mon	8	1.3%	65	10.7%
10/7/2008	Tue	5	0.8%	70	11.5%
10/8/2008	Wed	11	1.8%	81	13.3%
10/9/2008	Thur	5	0.8%	86	14.1%
10/10/2008	Fri	3	0.5%	89	14.6%
10/11/2008	Sat	17	2.8%	106	17.4%
10/12/2008	Sun	14	2.3%	120	19.7%
10/13/2008	Mon	6	1.0%	126	20.7%
10/14/2008	Tue	6	1.0%	132	21.6%
Arche	ry Subtotal	132			
		Both Archer	y and Shotgi	<u>un</u>	
10/15/2008	Wed	87	14.3%	87	35.9%
10/16/2008	Thur	84	13.8%	171	49.6%
10/17/2008	Fri	78	12.8%	249	62.4%
10/18/2008	Sat	114	18.7%	363	81.1%
10/19/2008	Sun	115	18.9%	478	100.0%
Combined Portion	on Subtotal	478			
Season Total		610			100.0%

<sup>&</sup>lt;sup>a</sup> Cummulative totals listed by respective by archery-only and the combined shotgun-archery portions of the fall turkey season.

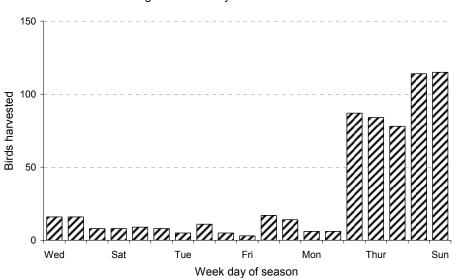


Fig. 1. Fall Turkey Harvest 2008

Table 3. Fall wild turkey harvest by permit type - Indiana, 2008.

Type of Permit	No. Harvested	% of Harvest	No. Licenses Sold by Season End Date <sup>a</sup>	Differences in Licenses Sold from Prior Year (%)
Resident Fall Turkey	135	23%	1,689	+132 (+8.5%)
Non-Resident Fall Turkey	4	1%	13	+5 (+62.5%)
Comprehensive Lifetime	347	48%	43,028 <sup>b</sup>	b
Comprehensive Youth	38	6%	37,192	+13,518 (+57.1%)
Landowner/active military	74	12%	Unknown & Exempt	Unknown & Exempt
Total <sup>c</sup>	598			

<sup>&</sup>lt;sup>a</sup> Apprentices licenses (new 2008) included in respective license type totals.

Table 4. Age and sex structure of the fall wild turkey harvest - Indiana, 2008.

	Juvenile <sup>a</sup>		Ad	ult <sup>b</sup>	Total <sup>c</sup>	
	No.	% <sup>c</sup>	No.	% <sup>c</sup>	No.	% <sup>c</sup>
Male	49	8.2%	166	27.7%	215	35.8%
Female	104	17.3%	281	46.8%	385	64.2%
Total <sup>c</sup>	153	25.5%	447	74.5%	600	
					Juvenile : Adult	1:3

<sup>&</sup>lt;sup>a</sup> Juvenile were birds estimated to be < 6 months old.

<sup>&</sup>lt;sup>b</sup> Comprehensive lifetime hunt and hunt & fish licenses as of July 2005 when the lifetime licenses discontinued. Value represents the number of lifetime license holders who could potentially hunt.

<sup>&</sup>lt;sup>c</sup> Missing values for permit type = 12; actual total harvest = 610.

b Adults were birds estimated to be ≥ 14 months old.

<sup>&</sup>lt;sup>c</sup> Percents are based on 600 birds; sex/age not recorded for 10 birds of 610 total harvest.

Table 5. Fall and spring wild turkey harvests in Indiana, 2008. <sup>a</sup>

	Type of	2008	Percent	2008	Percent
County	Fall	Fall	of Fall	Spring	of
	Season b	Harvest	Harvest	Harvest	Fall / Spring
Adams	Not Open			5	
Allen	Not Open			15	
Bartholomew	Archery	2	0.3%	105	1.9%
Benton	Archery	0	0.0%	10	0.0%
Blackford	Not Open			5	
Boone	Not Open			2	
Brown	Both	10	1.6%	205	4.9%
Carroll	Archery	1	0.2%	12	8.3%
Cass	Archery	0	0.0%	34	0.0%
Clark	Both	21	3.4%	307	6.8%
Clay	Both	0	0.0%	134	0.0%
Clinton	Not Open			0	
Crawford	Both	20	3.3%	247	8.1%
Daviess	Archery	1	0.2%	109	0.9%
Dearborn	Both	21	3.4%	353	5.9%
Decatur	Archery	1	0.2%	51	2.0%
DeKalb	Archery	3	0.5%	116	2.6%
Delaware	Not Open			0	
Dubois	Both	19	3.1%	213	8.9%
Elkhart	Archery	4	0.7%	56	7.1%
Fayette	Archery	0	0.0%	48	0.0%
Floyd	Both	8	1.3%	87	9.2%
Fountain	Both	11	1.8%	156	7.1%
Franklin	Both	24	3.9%	297	8.1%
Fulton	Archery	4	0.7%	81	4.9%
Gibson	Archery	2	0.3%	131	1.5%
Grant	Archery c	0	0.0%	6	0.0%
Greene	Both	22	3.6%	358	6.1%
Hamilton	Not Open			0	
Hancock	Not Open			0	
Harrison	Both	40	6.6%	428	9.3%
Hendricks	Not Open			9	
Henry	Not Open			Not Open	
Howard	Archery	0	0.0%	7	0.0%
Huntington	Archery	2	0.3%	33	6.1%
Jackson	Both	21	3.4%	277	7.6%
Jasper	Archery	4	0.7%	77	5.2%
Jay	Not Open			7	
Jefferson	Both	24	3.9%	464	5.2%
Jennings	Both	13	2.1%	304	4.3%
Johnson	Archery	1	0.2%	32	3.1%
Knox	Archery	3	0.5%	103	2.9%
Kosciusko	Archery	3	0.5%	63	4.8%
Lagrange	Archery	2	0.3%	89	2.2%
Lake	Archery	0	0.0%	10	0.0%
LaPorte	Archery	4	0.7%	197	2.0%
Lawrence	Both	5	0.8%	301	1.7%
Madison	Not Open			1	
Table 5 con't on next	page.				

Table 5 con't on next page.

Table 5. Fall and spring wild turkey harvests in Indiana, 2008. <sup>a</sup>

Totals	тиот Ореп	610	100.0%	12,204	5.0%
Whitley	Not Open			12	2.9%
White	Archery	1	0.2%	34	2.9%
Wells	Not Open			28 7	0.0%
Washington Wayne	Archery	0	0.0%	314 28	5.4% 0.0%
	Both Both	17	2.8%	269 314	7.8% 5.4%
Warren Warrick	Archery	21	3.4%	139 260	1.4% 7.8%
Wabash	Archery	2	0.2%	56 130	1.8%
Vigo	Both	1	0.2%	189	3.2%
Vermillion	Archery	6	1.0%	154	3.9%
Vanderburg	Archery	6	1.0%	19	0.0%
Union	Both	0	0.7 %	56	7.1%
Tipton	Not Open	4	0.7%	0	7.40/
Tippecanoe	Archery		0.0%	40	0.0%
Switzerland	Both	0	0.0%	533	6.8%
Sullivan	Both	36	5.9%	303	4.6%
Steuben	Archery	9 14	2.3%	299	3.0%
Starke	Archery	9	1.5%	266	1.5%
Spencer	Both	4	0.7%	275	8.0%
Shelby	Not Open	22	3.6%	1	
Scott	Both		1.0 /0	194	5.7%
St. Joseph	Archery	4 11	1.8%	170	2.4%
Rush	Not Open	4	0.7%	0	
Ripley	Both		2.5 /0	234	6.4%
Randolph	Not Open	 15	2.5%	6	
Putnam	Both	4 	0.7%	150	2.7%
Pulaski	Archery	4	0.3%	94	2.1%
Posey	Archery	3 2	0.5% 0.3%	123	2.4%
Porter	Archery	0	0.0%	25	0.0%
Pike	Both	31	5.1%	274	11.3%
Perry	Both	22	3.6%	320	6.9%
Parke	Both	15	2.5%	302	5.0%
Owen	Both	8 15	1.3%	246	3.3%
Orange	Both	17 o	2.8%	290	5.9%
Ohio	Both	6 17	1.0%	188	3.2%
Noble	Archery	2	0.3%	53	3.8%
Newton	Archery	4	0.7%	86	4.7%
Morgan	Archery	1	0.2%	86	1.2%
Montgomery	Archery	0	0.0%	62	0.0%
Monroe	Both	9	1.5%	239	3.8%
Miami	Archery	0	0.0%	23	0.0%
Martin	Both	11	1.8%	241	4.6%
Marshall	Archery	6	1.0%	255	2.4%
Marion	Not Open		4.00/	4	
	Season <sup>b</sup>	Harvest	Harvest	Harvest	Fall / Spring
County	Fall	Fall	of Fall	Spring	of
	Type of		Percent		

Harvest totals from check station reports.
Archery = archery only. Both = archery and shotguns.

<sup>&</sup>lt;sup>c</sup> Only part of county open; e.g., western Grant County archery only, eastern Grant closed.

Figure 2. 2008 Fall Wild Turkey Harvest

